Conclusion: Our results indicate the existence of a mitochondrial stress environment with a lasting negative impact on residual kidney-function at day 30 likely reflecting a renal-tubular dysfunction in the remaining kidney. Further biochemical analyses are ongoing to confirm the nature of this dysfunction allowing the targeting of timely interventions.

0598: EFFECTS OF ENDOTHELIN RECEPTOR ANTAGONISM IN AN EXPERIMENTAL MODEL OF RENAL TRANSPLANTATION

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Aim: Uncontrolled Donation after Circulatory Death (uDCD) donors provide a large potential source of kidneys but there is reluctance to use them due to prolonged warm ischaemic times. Endothelin-1, a potent vasoconstrictor, is a major contributor to ischaemic injury. This study aimed to investigate the benefit of endothelin receptor blockade in an experimental model of uDCD transplantation.
Methods: Porcine kidneys underwent 60 minutes warm ischaemia and 2 hours cold ischaemia followed by 3 hours of reperfusion with autologous blood without (control, n = 6) and with (n = 6) 500μg BQ-123, a selective ET_A endothelin receptor antagonist. Markers of renal function and injury were analysed.
Results: Renal blood flow was significantly higher in the experimental group at 15–30 minutes of reperfusion (29.6–37.7 vs. 13.1–18.2 ml/min/100 g, p = 0.02), after which, although higher throughout, statistical significance was lost. Urine output, creatinine clearance and oxygen consumption were also higher in the experimental group throughout but statistical significance was only seen in the 1st hour urine output (83 vs. 32 ml/hr, p = 0.01). Urinary Neutrophil Gelatinase-Associated Lipocalin (NGAL) levels were not different between the groups.
Conclusion: Kidneys can recover from warm ischaemic injury. BQ-123 appeared to improve perfusion and function initially but did not have a sustained effect or significant overall benefit.

Association of Surgeons of Great Britain & Ireland Short Paper Session

0002: SURGICAL AND TRANSCATHETER CLOSURE OF CONGENITAL CORONARY FISTULAE: OUTCOMES FROM A NATIONAL AUDIT

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Aim: To report short and long term outcomes after surgical and transcatheter correction of congenital coronary fistulas (CCF).
Methods: Using data from the UK Central Cardiac Audit Database we performed a retrospective analysis of all patients undergoing surgical or transcatheter correction of CCF between 2000 and 2012.
Results: Out of 81 patients (48.2% Male, 51.8% Female), 34 (42%) underwent surgical repair and 47 (58%) had transcatheter procedures. The median ages were 12.6 years for surgery (range, 0.08–68.2) and 7.8 years (range, 0.01–77.8) in the catheterization group. Mean follow-up times were: 5.3 years (range, 0–13.0) for the surgical group and 4.6 years (range, 0–12.7) for the catheter group. There was no 30-day mortality in the entire cohort. One-year mortality for the surgical group was 7.41 % vs. 2.94 % for the catheter group (p = 0.58). In the catheter group 4 patients (8.51%) required one or more reinterventions, compared to no reinterventions in the surgical cohort (p = 0.13).
Conclusions: CCF repair via transcatheter or surgical approach is attainable with no early mortality and good medium-term results. Careful patient selection would have to be partly responsible for these excellent national results Reintervention is overall infrequent and it appears to be higher after transcatheter embolisation.

0418: TRANS-VAGINAL DUPLEX ULTRASOUND FOR DETECTING PELVIC VEIN INCOMPETENCE IN WOMEN: A PILOT STUDY

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Aim: Pelvic vein incompetence (PVI) is diagnosed by reflux venography. This is invasive, nephrotoxic and involves ionizing radiation in young women. Trans-vaginal duplex ultrasound (TVU) is a non-invasive and entirely safe alternative. We compared TVU with reflux venography for the detection of PVI.
Methods: Women with clinical suspicion of PVI who attended for TVU and reflux venography were included in this study (n = 20). Sensitivity, specificity, positive and negative predictive value (PPV, NPV) were calculated for TVU with reflux venography as the 'gold standard'.
Results: 40-paired TVU and reflux venography images were analysed from 20 women, mean (range) age 45 (25–55). PVI was detected in all 20 images with TVU and 19 of 20 (95%) images with reflux venography. The sensitivity and PPV of TVU to detect PVI was 100% and 95% respectively. TVU identified left ovarian vein incompetence with a sensitivity and specificity of 78.6% and 66.7%; right ovarian vein incompetence with sensitivity and specificity of 71.4% and 100%; left internal iliac vein incompetence with sensitivity and specificity of 91.7% and 100%, and right internal iliac vein incompetence sensitivity and specificity of 70% and 90% respectively.
Conclusion: TVU is accurate and safe alternative to reflux venography in diagnosing of PVI.

0719: LIVING KIDNEY DONATION IN THE ELDERLY: THE UK EXPERIENCE

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Aim: To investigate the feasibility of elderly patients into living-kidney-donor(LDN) programmes to understand if an upper age limit to doantion should exist.
Methods: Details of 10,900 patients undergoing LDN in the UK from 2000–2013 were obtained. Patients were stratified into under 65 and 65+ years populations. Demographics, comorbidity burden, nature/incidence and severity of complications, renal function and proteinuria were analysed using unvariate tests.
Results: 586(5.8%) 65+ underwent LDN during 13-year period. Elderly LDN increased from 2.29% to 11.08% during 13-year period(p = 0.000). Older donors were mainly white(96vs86% p = 0.00) with lower deprivation score(mean-IMD:14.9vs21.3 p = 0.001), hypertensive(15.8%vs7.12% p = 0.000), with lower comorbidity burden(ASA2+)(8.19%vs13.32% p = 0.00). BMI, sex and operative factors were similar in groups. The occurrence of minor(Clavien1,2:8.9vs10.1% p=0.353) and major(Clavien3+:2.39vs1.76% p = 0.263) complications were similar. Mean hospital-stay was equivalent(4.63vs4.42days, p = 0.12). Rises in Syst-BP(3.62vs1.56mmHg p = 0.02) and creatinine(36.7vs30.4 μmol p = 0.000) 1-year postdonation were greater in 65+. New onset proteinuria at 1-year was similar(3.41vs3.51% p = 0.433).
Conclusion: Elderly donors comprise an increasing proportion of the donor pool. Perioperative morbidity was similar to younger counterparts. Postoperative measures of cardiovascular risk were within acceptable limits. Continued and increasing use of elderly donors is acceptable, however further data on recipient outcomes assessing the impact on graft function is required.

0776: CHANGE IN PRACTICE OVER FOUR DECADES: INCREASING USE OF RADIO-ACTIVE IODINE ABLATION BUT DECLINING RELIANCE ON SURGICAL ABLATION IN THE MANAGEMENT OF GRAVES' DISEASE

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Aim: To ascertain changes in practice in the treatment of Grave's thyrotoxicosis in Tayside, Scotland, over the past four decades.
Methods: The "Scottish automated follow-up register" (SAFUR) was queried to identify all patients treated for Grave's thyrotoxicosis from 1968 to 2007 inclusive. Demographic profile, treatment modalities, radio-active iodine (RAI) dose, and recurrence rates were studied and outcomes compared by X^2 test, and ANOVA using SPSS v15.0. A p value of <0.05 was considered significant.
Results: 3737 patients were diagnosed with Grave's thyrotoxicosis and were grouped as follows [Group-A (1968–1977; n = 436); Group-B

(1978–1987; n = 755); Group-C (1988–1997; n = 1185); and Group-D (1998–2007; n = 1361)]. Use and dose of RAI has increased from 43.1% in Group-A to 68% in Group-D ($p < 0.001$). There has been a reduction in recurrence rate with higher dose of RAI (17.3% with dose 185–369 MBq (n = 295); 4.1% with >555 MBq (n = 815)) ($p < 0.001$). Surgical intervention rates decreased from 55.3% to 12.3% in Group-A and D respectively ($p < 0.001$).

Conclusion: Analysis of a large dataset of patients with Grave's thyrotoxicosis suggests increasing use of RAI as the preferred first line of treatment. Using a single higher dose of RAI and adoption of total thyroidectomy has decreased the recurrence rates.

0786: RURAL HOSPITAL OUTCOMES VERSUS NON-RURAL HOSPITAL OUTCOMES FOLLOWING EMERGENCY LAPAROTOMY: A SCOTTISH RETROSPECTIVE COHORT STUDY

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Aim: Scotland has six remote and rural hospitals providing a comprehensive surgical service. This study compared outcomes following emergency laparotomy between these rural hospitals and non-rural hospitals in Scotland.

Methods: Data on all emergency laparotomies performed in Scotland from April 2001–March 2011 were identified from the SMR01 database of inpatient admissions. The mortality rate specific to each included operation code was determined, allowing creation of risk quartiles of procedural mortality. Logistic regression was performed using this variable in addition to age, Charlson comorbidity index and a deprivation index.

Results: A cohort of 30,623 cases was identified, with a median age 65 years old. Overall Scottish all-cause post-operative mortality was 11.3% at 30 days. 30-day mortality in the 835 rural hospital cases was 9.2%, versus 11.4% in the 29,726 non-rural hospital cases, $p = 0.052$. However, following risk adjustment, the odds ratio of 30-day mortality in a rural centre was estimated as 0.62 compared to non-rural centres (95% confidence interval 0.48–0.79).

Conclusion: Emergency laparotomy outcomes are superior in Scotland's rural hospitals, compared with non-rural hospitals, when using risk-adjusted administrative data. This suggests that rural hospitals provide a high quality of emergency surgical care, even accepting that their case mix and transfer patterns are different.

0842: PACKING OF PERIANAL ABSCESS CAVITIES (PPAC) STUDY: A MULTI-CENTRE OBSERVATIONAL FEASIBILITY STUDY, INTERIM ANALYSIS

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Aim: 18,0000 acute perianal abscesses occur in England each year. This study investigates current management and outcomes with the aim of demonstrating feasibility for an RCT of packing versus no packing.

Methods: Patients were asked to complete pain score diaries and QoL assessments, in addition to 1, 2, 3, 4, 8 week and 6 month follow up. This interim analysis was undertaken at 11 months.

Results: 142 patients recruited over 10 months (15 centres). Mean age 39 years, 64% female. At operation, 9% had a fistula identified (no fistulotomies) and 97% were packed. Average number dressing changes in 21 days was 7.4. Packing causes double to three-fold increase in pain. Pain intensity halves after a week. At 4 weeks, 48% healed. 8-week fistula rate was 21% and recurrence rate 9% (n = 2) at 6 months. 26 patients withdrew consent or lost to follow-up. The estimated dressing and community nursing costs are £159.84 per patient (£2,877,120 pa in England).

Conclusion: Packing is painful. A trial of packing versus no packing is feasible. If no packing results in reduced pain and has no increased fistula or abscess recurrence rates, there could be considerable cost savings to the NHS and patients.

1014: EARLY GRAFT LOSS FOLLOWING LIVER TRANSPLANTATION: CAUSES AND CONSEQUENCES

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Aim: To determine the incidence, causes and consequences of early graft loss (EGL) following deceased Liver Transplantation (LTx) at our centre. EGL was defined as graft loss occurring due to graft failure within three months of LTx.

Methods: Recipient outcome data was collected for all LTx's performed at the Cambridge Transplant Centre between 01/01/2000 to 01/01/2014 using a prospectively maintained database. Each patient had at least 90 days of follow-up post-operatively.

Results: 989 LTx's were performed in 906 patients during the fourteen year period. EGL occurred 68 times in 61 patients (6.7%). 46 patients were re-transplanted following the first episode of EGL. 6 had recurrent EGL (90 day survival 16.7%) and one had a further third episode. The predominant identifiable causes of EGL were hepatic artery thrombosis (HAT) (28%) and primary non-function (PNF) (26.5%) of the liver grafts.

Conclusion: EGL is a major contributor to morbidity and mortality post-LTx. The causes of EGL include a heterogeneous group of pathologies. Re-transplantation (Re-Tx) following EGL is associated with a favourable patient outcome. Re-Tx following recurrent EGL requires careful consideration of the patient condition and underlying aetiologies of EGL. Our next step is to identify risk factors for EGL in our patient cohort.

Surgical Oncology Trainees' Association Short Paper Session

0180: PATIENTS TREATED WITH ONCOPLASTIC BREAST CONSERVATION REQUIRE MORE POSTOPERATIVE RADIOLOGICAL IMAGING, CONSEQUENT BIOPSY AND OUTPATIENT CLINIC VISIT THAN PATIENTS TREATED WITH SIMPLE WIDE LOCAL EXCISION

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Aim: Oncoplastic breast conservation surgery (OBCS) is a more complex procedure than simple wide local excision (WLE). We compared number of postoperative imaging, biopsies and outpatient visits between the two operations.

Methods: Patients treated with level II OBCS (n = 84) in two breast units between 05/09 and 11/11 were compared to patients who underwent simple WLE (n = 319) between 01/10 and 11/11. Number of imaging modalities, biopsies and outpatient visits within the initial 24 months postoperative period were compared using student's t-test.

Results: OBCS patients required significantly more postoperative ultrasound (0.595 vs. 0.091; $p < 0.0001$), MRI (0.095 vs. 0.015; $p = 0.004$), and breast biopsy (0.44 vs. 0.019; $p < 0.0001$). Abnormal findings on postoperative imaging were more frequent after OBCS (0.143 vs. 0.012; $p < 0.0001$). This required much more clinic visits from patients who were treated with OBCS (4.583 vs. 1.99; $p < 0001$). The total number of postoperative imaging was also higher in patients treated with OBCS (2.25 vs. 2.01; $p = 0.0842$). More mammograms were carried in patients who had WLE (1.61 vs. 1.90; $p = 0.0046$).

Conclusion: More frequent postoperative breast ultrasound, MRI, and more common abnormal radiological findings, and consequent breast biopsies reflect the relative complexity of OBCS. In the future informed consent for OBCS should include this observation.

0191: IMPACT OF ENHANCED RECOVERY PROGRAMME ON PATIENTS UNDERGOING LUNG CANCER SURGERY

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Aim: Enhanced recovery protocols (ERP) consist of a series of evidence-based perioperative strategies which work synergistically to expedite recovery after surgery. We evaluated the impact of the Thoracic Surgery ERP since its official launch in our institution.

Methods: The full ERP was adopted in July 2013. We retrospectively reviewed all patients undergoing lobectomy one year prior to and one year following the introduction of the ERP.